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the shuttle

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BizownerHQ Simplifies Valuation Process for Small Business Owners

What do a florist, a dentist and a public relations firm have in common? Business life events. A term coined by the co-founder of bizownerHQ.com, Roger Winsby, "business life events" are those issues that all small businesses encounter, such as buying insurance, selling the business or evaluating retirement funding.

BizownerHQ.com, part of UMass Lowell's Commercial Venture Development (CVD), provides information and advice about valuation, the dollar value of a business.

"Valuation is often not used strategically, it's used as a defense—in divorce, lawsuit, or liquidation," says Winsby. "We thought that valuation could be used proactively as a strategic tool."

The Valuation GURU™, the product that Winsby and co-founder Stanley Feldman developed, is an affordable, real-time, online tool. Usually valuation would take anywhere from four to six weeks to gather data specific for an industry and would cost between \$5,000 and \$25,000. BizownerHQ.com has built a database of 981 industry forecasts enabling quick turn-around. For \$400, a company receives three long reports and unlimited short reports, which can be adjusted depending on changing factors such as interest rates.

Part of the relationship between CVD and the start-up companies it houses is the hiring of students. According to Winsby, UMass Lowell students have had "a big impact" on bizownerHQ.com: Two finance

students gleaned information from government sources for the industry forecasts database and two computer science students worked on the Web site for the August 1 launch. Currently three more students are on staff to help out as the site gets up and running.

"What better way to become educated than working on real opportunities?" says Dr. Louis Petrovic, director of External Funding, Technology Transfer and Partnering. "This is a major strength of UMass Lowell's program. We are delighted with the involvement of the students and their positive impact on these growing companies."

—SS

Open House 2001 Draws More Volunteers, More Students

It may have been a quiet Sunday morning on Oct. 14, but not at the Tsongas Arena. With 683 prospective students on hand for Open House 2001, the place bustled with the sounds of deans' presentations, admissions workshops, and one-on-one conversations between prospec-

tive students and members of UMass Lowell's recruitment team.

On this Open House day, the team included about 300 faculty, students, and staff — even more than in previous years. In addition to those who were on hand at the Arena, students, faculty and staff volunteers led tours of Fox Residence Hall and each campus.

Comments from visiting families most frequently mentioned the enthusiastic turnout of the University community for the event. Dana Skinner, director of Athletics, put some figures behind the anecdotal evidence that the crowd was bigger than in previous years: "We baked and gave away two boxes of cookies; last year, we used less than one," he said.



▲ Michelle Lucier, assistant resident director for Sheehy Hall talks to a prospective student and her mother.



▲ Checking prospective students in were, from left, Pat Vaillancourt, Purchasing; Sandra Daigle, Admissions; and Judith Zanni, Human Resources.

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Study Asks, What Makes a Good Engineer?

Effective engineering is essential to the powerhouse economies of the United States, Japan and Germany. But what makes a good engineer? And how do companies manage their engineering workforce in the three countries?

A current study by Hal Salzman, senior research scientist with the Center for Industrial Competitiveness at UMass Lowell, is finding answers. Salzman, along with Leonard Lynn, of Case Western Reserve University, has been awarded a National Science Foundation grant to conduct the U.S. component of a cross-national study of engineering practices and engineering education in five industries: machine tools, electronics, automobiles, automobile parts, and medical equipment. According to Salzman, "This project focuses on how to define 'high performance' in engineering and what work experiences contribute to high performance." Research teams in Japan and Germany are examining these same issues, using a common set of questions for interviewing engineering managers, individual engineers and human resource managers.

Halfway through the two-year study, Salzman has some early findings from U.S. companies.

"Ask managers what are the top three skills that define a good engineer and they answer 'communication, communication, communication,'" said Salzman. "Engineers must express themselves well to convey the value of what they do, relate to people outside their discipline and work well in teams."

Restructuring of large firms has changed the nature of engineering work. Companies have moved their innovation and R&D

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Take Note

Conversation Dinner 'Samples' Course Enhancements on Nov. 8

The Council on Teaching, Learning, and Research as Scholarship will hold a Conversation Dinner in the Faculty Lounge in Alumni Hall on Thursday, Nov. 8.

Following welcoming remarks by Chancellor William T. Hogan, the conversation on "Course Enhancements Sampler: Community, Technology and Applied Learning" will be presented by Doreen Arcus, James Canning and Marion Muskiewicz, with Gil Brown serving as moderator.

The event begins at 3:15 p.m. with a reception, followed by the presentations at 3:35 p.m. A dinner reception follows the presentations.

Annual Memorial Symposium Planned for Nov. 30

An annual technical symposium, the "Sukant Tripathy Annual Memorial Symposium," organized by the Center for Advanced Materials, is planned for Friday, Nov. 30. Speakers will discuss their research within the

broad area of polymers in electronics and optics, reflecting Dr. Tripathy's wide-ranging interests. The symposium will be held in the MIL Conference Room, Wannalancit Mill, 8:30 a.m.-4:30 p.m. Updated program information will be posted on the UMass Lowell News page of the Web site. Register in advance with Michele Vercellin, ext. 3695.

MRT Offers Special Subscription Package to Faculty and Staff

The Merrimack Repertory Theatre, Lowell's professional theater company, is offering a special subscription package to UMass Lowell faculty and staff. Up to two subscriptions may be purchased at the special rate of seven plays for \$105 or four plays for \$66 (per subscription). To get these special rates, call the box office at (978) 454-3926 and tell the box office manager that you heard about the offer through a campus message for faculty and staff. For more information about MRT, visit their Web site at www.merrimackrep.org.

Career Fair



▲ Claire Hoffman, left, recruiting coordinator for Career Services, and Eileen Paquin, administrative assistant, greet some of the nearly 1000 students at UMass Lowell's Career Fair. Representatives from 80 companies came to meet students, along with 200 recruiters.

Special Panel Talks Trash—and Recycling

This time of year, thoughts often turn to the traditional holidays. But, there's a new holiday to think about as well—America Recycles Day. In 1999, Nov. 15 was set aside as a day to urge Americans to take personal responsibility for the environment, not only by recycling, but by choosing to use products made from recycled materials.

In order to create a greater public awareness of the event and its issues, Merrimack Valley 2050 (MV2050) is organizing a Lowell gathering on the theme of "Trash and Recycling—From Local to National." Discussions and presentations will take place in the Mayor's Reception Room in Lowell City Hall on Nov. 14 from 6:30 to 8:30 p.m.

The keynote speaker will be Scott Cassell, director of the Product Stewardship Institute. Cassell says one of the institute's goals is to get private industry to take back the cost of dealing with a product when it is at the end of its useful life. Ultimately, the cost would be passed on to the consumer.

"Consumers wind up paying one way or the other," says Casell.

He is hopeful that Lowell will become the first local government to become a member of the Institute. The Institute is a joint program of the University of Massachusetts system and the Massachusetts Executive Office of Environmental Affairs.

MV2050 is a partnership between UMass Lowell and diverse groups in the Merrimack Valley to promote a sustainable region and sustainable world. Event activities are being coordinated by MV2050 members Carol McCarthy of Keep Lowell Beautiful, Prof. John MacDougall of the Regional Economic and Social Development Department and Julie Villareal of the Center for Family, Work and Community. Representatives from numerous community organizations are serving as advisors.

According to Villareal, the goal of the event is to create greater public awareness by "showcasing what's happening right now." She adds, "Even an individual can always do more."

America Recycles Day activities are open to everyone. Refreshments will be served. For information, call John MacDougall, ext. 4303.

Healthcare Conference to Address Workplace Concerns

Anyone who reads a newspaper is familiar with problems in healthcare—inadequate access to quality services, costly medicines and hospital staffing shortages. But, the story that is not being told is how such problems affect the working environment for healthcare professionals.

Participants at a one-day conference on Nov. 9, "Occupational Health and Safety in the Changing Healthcare Industry," will explore these workplace concerns and help develop solutions to address them. It is sponsored by Promoting Health and Safe Employment in Healthcare (PHASE), a UMass Lowell five-year study funded through the National Institute of Occupational Health and Safety. The research project, managed by Jody Lally, is headed by Prof. Craig Slatin of Health and Clinical Sciences and Prof. Laura Punnett of Work Environment.

The conference's morning panel, which will be moderated by Dr. Sherry Brown, M.D., M.P.H., of the

National Institute for Occupational Safety and Health, will focus on the social and economic impacts of workplace injuries. The afternoon will feature interactive breakout sessions on ergonomics, stress, violence and needlestick injuries.

Healthcare managers and supervisors, workers, union members, advocates, students, faculty and others interested in healthcare are encouraged to attend. UMass Lowell will provide 6.5 contact hour credits for nurses and 5.5 hours for other healthcare professionals who participate in the conference.

The conference will take place from 8:30 a.m. to 3:45 p.m. at the Holiday Inn, 4 Highwood Dr. (off Route 133) in Tewksbury. For more information or a registration form, contact the project's website at www.uml.edu/phase or call Perry Honeychurch, project administrator, at 978-934-2908.

Radio Program Thinks Out Loud About the Environment

On any given day, Julie Villareal of the Center for Family, Work and Community (CFWC) can be found digging deep into a pile of compost, trying to show a visitor the worms that are the key ingredient to the Center's Vermicomposting Project. Who would have thought that this would have lead to her big break as a talk show host on WJUL 91.5 FM, the University's radio station?

This past June, "Thinking Out Loud," WJUL's news magazine program, introduced "Environmental Corner." The thirty-minute segment features Villareal and co-host Tony DiSilva, the City of Lowell Recycling Coordinator, interviewing guests about everything from recycling and healthy workspaces to environmental justice and activism.

The CFWC and the City Recycling Office have worked cooperatively on a variety of projects such as a recent thermometer exchange program as part of the city's "Hazardous Waste Day."

According to Villareal, "It's another great partnership between UMass Lowell and the City of Lowell. It's been great!"

Dan Toomey, one of the hosts and producers of "Thinking Out Loud," says the three-year-old program runs 6 a.m. to noon every Wednesday, and features national stories, local news, and an hour each of programming geared toward the Latino and Cambodian communities. The show is designed to explore issues that affect the community, workplace and the environment.

Toomey, who also works at the CFWC, says that, while the first two goals have gotten much attention on the show, the station wanted to do more on the environment. That's why they approached Villareal and DiSilva about doing a thirty-minute segment called the Environmental Corner from 11:30 a.m. to noon.

It's difficult to know how widespread the audience is for the fledgling show. "We're trying to get the listenership to spread the word," DiSilva says.

According to Toomey, "the strategy is to use the community groups that are served by the program and who already have a constituency to bring in listeners."

Anyone with a programming idea for the Environmental Corner can contact Julie Villareal at ext. 4677.



▲ Julie Villareal, co-host of WJUL's Environmental Corner, interviews Khan Chao, community outreach worker at the Center for Family, Work and Community about the Center's upcoming projects.

Tsongas Industrial History Center Hosts "Watery" Teacher Call-Back Day

Waterpower. "Green engineering." Groundwater pollution. Lowell's 1890s typhoid epidemic. These topics, all centered around natural resources and, especially, water, became areas of exploration for 13 Massachusetts teachers attending a call-back day recently at the Tsongas Industrial History Center.

The day's activities were part of the Tsongas Center's "Content Institute," funded by the Massachusetts

Department of Education, which ran for 30 hours last summer. The Institute continues during the school year with a few "call back" days. Teachers enrolled in the Content Institute are developing units on the Industrial Revolution for eighth-graders in Lowell and other Massachusetts school districts.

Patrick Malone of Brown University, an expert on both Lowell's canal system and its early parks and green-spaces, opened the call-back day. He then accompanied the group on a Lowell National Historical Park boat tour, locking out to the river in tandem with a UMass Lowell reunion group also enjoying a boat tour. After visiting the Pawtucket Gatehouse, where they examined a 19th-century turbine and the gates and gears that continue to

control the flow of the Merrimack into the Northern Canal, the group participated in the Tsongas Center's groundwater pollution lab activity at the Wannalancit Mill. Project Assistant Tim Lavallee finished the

program with an explanation of a new student activity that focuses on the history of Lowell's municipal water supply and its associations with the typhoid epidemic of the 1890s. The DOE institute teachers will return to the Tsongas Center in December for a second call-back day on immigration.

"The Spencers" Offered at Discovery Series

The next offering in the Family Discovery Series, which will be the kick-off to the 15th anniversary of the program, will be "The Spencers: Theatre of Magic and Illusion," scheduled for two showings—at 2 and 4:30—on Nov. 4 in Durgin Hall, South Campus.

The production, which is geared to appeal to every member of the family, includes a blend of illusions, magic, comedy, music and audience participation. Using magic in much the same way as storytellers use words, the Spencers' shows run across a gamut of emotions, from bewilderment to romance to side-splitting comedy and edge-of-your seat drama.

The performance will last roughly an hour, without intermission. Tickets are \$9 per person, with discounts available to those who purchase four or more shows in the series.

The other scheduled Discovery Series offerings this season: "A Christmas Carol," "Grand Derangement," "Dancing in the Flames," "The Alice in Wonderland Follies," and a show by the celebrated John McCutcheon.

For more information, to request a brochure or order tickets by credit card, call the box office at 978-934-4444 Mondays through Fridays, 9 a.m. to 3 p.m. Tickets are also available in the lobby an hour prior to each show.



▲ David Soule, executive director, Metropolitan Area Planning Council, left, meets with Prof. Bill Mass, Regional Economic and Social Development, prior to a recent RESD Seminar. Soule reviewed the history of the interstate highway system and its effect on urban sprawl in eastern Massachusetts in the past 50 years.



▲ Patrick Malone, center, of Brown University speaks to Massachusetts teachers at the Pawtucket Gatehouse. Lowell National Historical Park Ranger Tess Shatzer, at left, also instructed the teachers during the Tsongas Industrial History Center's Content Institute call-back day.

Soule Urges Smart Growth at Seminar on Sustainable Development

▲ David Soule, executive director, Metropolitan Area Planning Council, left, meets with Prof. Bill Mass, Regional Economic and Social Development, prior to a recent RESD Seminar. Soule reviewed the history of the interstate highway system and its effect on urban sprawl in eastern Massachusetts in the past 50 years.

Like the Common Cold, Computer Viruses Are A Fact of Life

Anyone concerned about the threat of computer viruses may take comfort in the knowledge that there are ways to combat them.

But, don't get too comfortable.

"Computer viruses are going to be a fact of life in the 21st century," says Dick Desroches, UMass Lowell's director of Information Services.

"There are going to be more of them, and they're going to get worse..."

"There are going to be more of them, and they're going to get worse. Vigilance is the solution."

Vigilance includes the usual precautions: Install the latest anti-virus software in your computer. Don't download e-mail attachments if you're not certain of their origin. Don't save files in response to Web page prompts.

MacIntosh users are less likely to be affected, Desroches says, because those who create and transmit viruses target PCs, which represent the vast majority of computers now in use.

The so-called Love Bug virus that spread last year didn't do a great deal of damage, he says, but resulted in "denial of service" because it brought down networks as a result of the enormous number of messages it generated.

The recent NIMDA virus, however, was much more destructive,

according to Desroches. It was spread by e-mail, through Web sites, and by the opening of shared folders.

Most of the damage on campus was done to the Windows NT or Windows 2000 servers, he says. In many cases they had to be reinitialized and rebuilt.

"It destroyed files and altered important operating system files. It was much more dangerous than any virus in the past," he says. He estimates that dozens or perhaps hundreds of computers on the campus were harmed or lost important data.

The best protection requires a number of steps.

"If you use Internet Explorer 5, you should install a patch from Microsoft." He defines a patch as something that plugs a software gap, "like putting a patch in a pair of jeans."

If you run a server, a whole series of patches needs to be installed. And you should go to an anti-virus software vendor - like McAfee or Norton - and download a tool that cleans viruses off disks.

"It can be a lot of work," Desroches claims. "It took me close to 30 or 35 hours to clean a single server last week."

And even after taking all those steps, he says, "You have to be forever vigilant because it could come back. You have to watch everything much more carefully because who knows when the next virus will strike?"

—JMcD

Discussion Seminar Tries to Explain "Why Do They Hate Us?"



◀ Prof. Paul Atwood of American Studies at UMass Boston and Souad Dajani, program coordinator for the Middle East and Horn of Africa at Grassroots International, were the featured speakers at "Why Do They Hate Us?: Middle East Politics and U.S. Foreign Policy." The event, sponsored by the Peace and Conflict Studies Institute, attempted to provide differing perspectives of the Middle East crisis for the more than 60 students in attendance.

Website Cited in "Science"

A bioinformatics Web site developed by scientists at UMass Lowell was cited in the Sept. 21 issue of "Science" magazine. The community site, <http://bioinformatics.org>, was inspired by the Open Source software movement and, according to "Science," "provides information on a wealth of free tools being developed for bioinformatics research."

The executive director of the site, Jeffrey W. Bizzaro, BS '97, currently a UMass Lowell Ph.D.

candidate in chemistry, got the idea when he was a chemistry undergraduate. While completing a masters degree at Boston College, Bizzaro started an international collaborative organization, with over 1,000 member groups, committed to opening access to bioinformatics research projects,

providing Open Source software for bioinformatics by hosting its development, and keeping biological information freely available.

Chemistry Prof. Kenneth Marx chairs the scientific advisory board of the site and hosts the community site through the University.

More than 40 scientific projects have been gathered on the site, from AcE, a gene finding accuracy evaluation tool and test dataset, to WAX, a general framework for tying together XML-based applications on the web. Visitors can download and use programs that are ready and submit feedback to developers.



▲ Graduate student Jeffrey W. Bizzaro, left, executive director of bioinformatics.org, confers with Chemistry Prof. Kenneth Marx, who hosts the servers for the international community site.

Student Research Paper Honored by American Chemical Society

Sucharita Roy, Ph.D. candidate in chemistry at UMass Lowell, was awarded the Imperial Chemical Industries (ICI) Student Award in Applied Polymer Science by the American Chemical Society (ACS) for research that she

conducts with Prof. Jayant Kumar, of the Physics Dept., and Dr. Lynne Samuelson, adjunct professor in Chemistry.

Up to six graduate student honorees are chosen for their research in polymer science by the Polymer Education Committee of the ACS Division of Polymer Chemistry and Division of Polymeric Sciences and Engineering. The award is sponsored by the ICI group, one of the world's largest producers of specialty products, industrial adhesives, fragrances, flavors, food ingredients, paints and refrigerants.

Roy's presentation described the fabrication of a particular "synzyme"—a synthetic enzyme—for the synthesis of a variety of electrically conducting and photonic polymers that may be tailored to suit a range of industrial, electronic and optical applications.



▲ Graduate student Sucharita Roy, standing left, won an award from the American Chemical Society for her research paper in polymer science. Her research in the Center for Advanced Materials is supervised by Physics Prof. Jayant Kumar, seated, and Dr. Lynne Samuelson, adjunct professor in Chemistry.

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Study Asks, What Makes a Good Engineer?

to outsourcing, collaboration, or joint development, or have acquired new products and processes through corporate acquisitions.

"Corporate leadership believes it is cheaper to buy other companies, even at phenomenal prices, than to develop new products internally," says Salzman. "For the engineer, this means one invents less, manages more and must design for externally-acquired technology."

Also, as companies have "gone lean," they may be starving the learning process of their engineers, the ability to develop skill and

understanding through experience, application and continued learning.

"There isn't room on a cross-disciplinary team for a new engineer to shadow the work of a colleague," explains Salzman, "and the slack for innovation, for what engineers call 'under-the-bench work,' is gone."

"The real challenge for the contemporary firm is trying to hold on to a competitive edge that is based in technology, when the company owns less of it."

—SS



▲ Hal Salzman, senior research scientist with the Center for Industrial Competitiveness.



Prestigious Scholarships Awarded to Physics Students

▲ Two physics graduate students are beginning their advanced education with a little help from the American Nuclear Society. Cynthia Rivinius, left, and Tom McKittrick, third from left, received competitively awarded scholarships of \$5,000 each, presented to them at a Radiological Sciences seminar. With them are Physics faculty members Prof. Clayton French, Asst. Prof. Mark Tries, Prof. James Egan, chair of the Physics Dept., and Prof. Gilbert Brown of Chemical and Nuclear Engineering.



University Gallery Shows Kerouac's Artwork

▲ Dr. Ed Adler of New York University, left, who completed a book about the artwork of Jack Kerouac, joined John Sampas, literary executor of the Estate of Jack and Stella Kerouac, at the opening reception of "Jack Kerouac's Paintings and Drawings" at the University Gallery. Adler, a 1955 graduate of Lowell Technological Institute, presented a lecture on Kerouac's art as part of the recent Beat Attitudes symposium. Adler's own paintings will be featured in an April 2002 exhibit at the University.

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Open House 2001 Draws More Volunteers, More Students

"This is the most important single activity in the recruitment calendar," said Dr. Lisa Johnson, assistant vice chancellor for Enrollment Management, whose Office of Undergraduate Admissions sponsors Open House. Johnson confirmed that more students attended this year than in previous years. "Since we held Open House a week earlier than last year, that increase is particularly significant. Once again, we are very grateful to everyone who participated for making this a success."



▲ Michelle McGlone, Elkel Otero, and Sean Hughes, from the left, students who work in the Office of Undergraduate Admissions, distributed more than 1,500 maps, schedules, pens and fact sheets at Open House.



▲ Lynnette Torres, left, work-study student, and Elaine Hays Keough, both of the Communications and Marketing Department, offered information and helped troubleshoot problems during Open House 2001.

E-Community Offers a Home on the Net

How is the Internet being used to preserve ancient Cambodian culture? Just ask The Angkor Dance Troupe of Lowell. The troupe is one of more than two dozen community-oriented non-profit organizations and public agencies that are members of E-Community, an outreach program of the Web Office in the Office of Communications and Marketing. "This is a tremendous service that has helped us reach people right next door and audiences far beyond the Merrimack Valley," said Ruth Page, general manager of the Angkor Dance Troupe, Lowell's nationally known Cambodian dance ensemble. "We knew we had to be on the Web so that people would find us."

Developed over the past year, E-Community provides server space and technical support for World Wide Web sites. Each organization designs its own site and then updates the information frequently. The free server space is a savings for the groups while the technical help fills a gap in the staffing of most of the organizations. The non-profits and agencies represent a key segment of the regional economy. Their services and activities affect the quality of daily life in every community.

"We help an organization launch a site on the Web and show the staff how to update the information," explained Gerry Nelson, director of the Web Office. "If they run into problems, we're here to lend a hand. We're dealing with a variety of people, many of whom are partners with UMass Lowell in some form."

Another E-Community member is the Greater Lowell Community Foundation (GLCF), whose site won a national award last spring. "Ferney Lopez of UMass Lowell's Web Office worked closely with us to create an outstanding site that we simply would not have if not for E-Community," said David Kronberg, executive director of GLCF.

Other members include the City of Lowell, Belvidere Neighborhood Association, Center City Committee, Merrimack Valley Housing Partnership, Khmer Cultural Institute, and an on-line regional journal called "The Bridge Review: Merrimack Valley Culture."

Organizations or agencies interested in being considered for membership in E-Community should contact Websupport@uml.edu. Visit the site at <http://ecommunity.uml.edu>.

Students Find Ways to Cope With Being at the Head of the Class

Making the adjustment from sitting in the classroom to being in front of it can be a difficult undertaking. Add in the extra factors of being at a new university, in a new state, or in a new country, and you can start to understand the challenges many of our new graduate students face.

This September, the Council for Diversity and Pluralism's Task Force for Campus Climate conducted a two-day workshop for graduate teaching and research assistants to help them cope with this difficult transition. Over 80 students participated in sessions such as "Understanding the American Classroom" and "Cultural Differences in Communication."

The response from students indicated that the training reassured them that they were not alone in their feelings of apprehension, and as a result they felt more confident about their time in the classroom. They also appreciated learning about available campus resources, policies, and skills enabling them to better manage their workloads.

Further sessions are scheduled for the first Monday of each month. Upcoming workshops include "Stress Management/Time Management," Nov. 5, and "Grading Policy," Dec. 3. All graduate students are welcome to attend. Faculty should feel free to encourage their students to participate.

The Task Force is grateful for the efforts of the organizing committee that included Jim Hall, Dr. Sylvia Cowan, Dr. Beverly Perna, Susan Lemire, Dr. Alan Lincoln and Barbara Lyman.

For information, contact Dr. Chandrika Sharma, ext. 4574 or Chandrika_Sharma@uml.edu.

Public Speaking Club Helps Novice Speakers Talk the Talk

For many, the thought of speaking in front of a class, an audience, or even group meetings makes their knees shake and their stomachs turn. They're afraid no one else can relate to their feelings. If you or someone you know has this complaint, there's a University group designed to assist these nervous speakers perform despite their fears.

The UML Public Speaking Club began meeting last year to assist members to improve their presentation skills. Participants give talks, ranging from telling a two-minute story to presenting a much longer well-organized, well-delivered speech. Along the way, they practice impromptu delivery by addressing a "topic of the day" such as weight management.

The group works on a number of performance skills such as eye contact, tone of voice, body language, the effect of cultural differences on delivery, and the organization of ideas. All the while, Co-coordinator Chandrika Sharma says, they maintain "a friendly, informal environment."



Anyone wanting to improve their public speaking skills is invited to attend meetings, held Fridays from 3:30 to 4 p.m. in Ball 326. Any faculty or staff interested in helping should contact Dr. Chandrika Sharma, ext. 4574, Chandrika_Sharma@uml.edu, or Dr. Julie Chen, ext. 2992, Julie_Chen@uml.edu.

▲ The entire University community is invited to participate in the Public Speaking Club that meets Fridays at 3:30 p.m. in Ball 326. Members include, back row, from left, Hitesh Mundhra, Plastics Engineering; Prof. Julie Chen, Mechanical Engineering; Chandrika Sharma, Coordinator, Disability Services; Saurabh Barjatiya, Plastics Engineering; seated from left, Dang D. Long, Chemistry; Xianyan Wang, Chemistry; and Navin Bunyan, Mechanical Engineering. Chen and Sharma are co-coordinators of the club.

Exhibit Offers Paper Prayer

The Japanese have a tradition of offering decorated pieces of paper as a prayer for good health and well-being known simply as Paper Prayers. The UMass Lowell Art Department will host an exhibit of Paper Prayers, Nov. 7 through Dec. 7, in the Dugan Hall Gallery which will benefit the Boston Pediatric Aids Project and the September 11th Fund.

Funds will be derived from small donations made in exchange for Paper Prayer purchased before or during the exhibit. The 12" x 4" strips feature paintings, drawings, photographs, or poems, in a variety of media.

Staff and faculty are invited to participate in this event by donating a

Prayer or purchasing one during the exhibit. Paper Prayers may be submitted before or during the exhibit to the following address: Paper Prayers c/o UMass Lowell Art Department, First Floor, McGauvran Student Center, Room 126, 71 Wilder St.

Local artists are also invited to donate Prayers for a silent auction to be held on Nov. 28, from 3 to 6 p.m. Refreshments will be served at this time. Gallery hours are 9 a.m. to 3 p.m. Dugan Gallery is located in the Dugan Hall Basement Art Studios on South Campus.

For more information, contact Michele Auger, Gallery Coordinator, ext. 3491 or michele_auger@uml.edu.



Poet Janine Pommy Vega Unleashes the "Mad Dogs"

▲ The keynote speaker at this year's Beat Attitudes 2001 symposium was writer Janine Pommy Vega, author of "Mad Dogs of Trieste: New and Selected Poems." The October conference was attended by more than 100 area scholars, students and Beat devotees.



Archibald Shares Thoughts on Women in British Literature

Prof. Diana Archibald, English, was featured at "The Salon," a faculty colloquium in the Fine Arts, Humanities and Social Sciences on Oct. 3. Archibald's presentation was entitled, "The Uncivilized City and the Wild West: The Masculinization of American Women in British Literature."

We Do Windows

We're doing windows in Coburn Hall.

As part of the continuing campus upgrade and improvement project, the windows in Coburn are being replaced - first in classrooms and then in offices and common areas.

"Our plan is to complete one classroom per day," says Joe Caulfield, assistant to the Provost.

"In order to facilitate this, all classes scheduled to meet in a room where new windows are being installed will be moved to Room 205 for the day."

Although Caulfield didn't say as much, the minor disruption of schedules should be "paneless."

Symposium Explores Diversity and Educational Excellence



▲ Carol Geary Schneider, president of the Association of American Colleges and Universities, presented the keynote address at the 7th Diversity Symposium, Oct. 2. Dr. Schneider discussed how diversity can be used as a catalyst for educational excellence. Joining her are, from left, Lan Pho, director of the Council on Diversity and Pluralism; Prof. Jeffrey Gerson, Political Science; Prof. Charles Nikitopoulos, Psychology; and Prof. Anne Mulvey, Psychology.

Physics Alliance Marks Tenth Year



▲ Celebrating its tenth year of providing a forum and support network for high school and college physics teachers, the Lowell Regional Physics Alliance (LRPA) October meeting focused on the revised technology and engineering curriculum frameworks for Massachusetts. Gathered before the meeting are, from left, Physics Profs. Arthur Mittler and David Pullen, UMass Lowell; Yvonne Spicer, director of Career and Technical Education, Newton Public Schools; Barbara Libby, director of the Office for Mathematics, Science and Technology/Engineering, Massachusetts Department of Education; and Dean Robert Tamarin, Division of Sciences, College of Arts and Sciences, UMass Lowell.

Research Notes

Brown, Gilbert
\$10,000
North Atlantic Energy Service
UMass Lowell Nuclear Engineering Internships at Seabrook Station

Canning, James
\$14,400
Sitara Networks, Inc.
Internship at Sitara Networks, Inc.

Cassell, Scott
\$250,000
Massachusetts Executive Office of Environmental Affairs
Product Stewardship Institute

Chen, Julie
\$21,000
Ka Zak Composites, Inc.
Design, Fabrication and Testing of a Versatile Outfitting Attachment System Kit for Naval Sandwich Panels

Geiser, Kenneth
\$250,000
Massachusetts Executive Office of Environmental Affairs
Product Stewardship Institute

Giles, Robert
\$51,106
U.S. Department of the Army
Submillimeter Wave Radar Signature Support

Giles, Robert, Thomas Goyette and Thomas Horgan
\$340,086
UMass Amherst
Near-Quantum-Noise-Limited Hot Electron Bolometric Heterodyne

Huang, Jan C.
\$11,000
Epolab Chemical Industries, Inc.
Epoxy Used in LED

Karasek, Robert
\$10,044
United Steelworkers of America
Unions and Technological Change

Kegel, Gunter and Mary Montesalvo
\$9,000
Dominion Nuclear, Connecticut
Irradiation of Test Label Samples

Kegel, Gunter and Mary Montesalvo
\$10,900
Assurance Technology Corporation
Gamma Radiation Effects on Electronic Components

Prasad, Kanti
\$40,000
DISPL
Microelectronics Center

Richardson, Charles
\$10,044
United Steelworkers of America
Unions and Technological Change

Sandman, Daniel J.
\$5,000
U.S. Office of Naval Research
Macromolecular Assemblies for Optical and Electronic Applications

Waldman, Jerry
\$51,106
U.S. Department of the Army
Submillimeter Wave Radar Signature Support

Waldman, Jerry
\$340,086
UMass Amherst
Near-Quantum-Noise-Limited Hot Electron Bolometric Heterodyne

Marine Science Wave Sweeps UMass Campuses

The University of Massachusetts has won final approval from the Massachusetts Board of Higher Education to offer master's and doctoral degrees from its new Inter-Campus Graduate School of Marine Sciences and Technology. The initiative will marshal the resources of the Lowell, Amherst, Boston and Dartmouth campuses to create a program focusing on New England's crucial marine resources.

"This collaboration will ignite an unprecedented cross-campus interchange of expertise and ideas that will propel the University to the international forefront of marine science education and research," said University of Massachusetts Vice President for Academic Affairs Selma Botman, who spearheaded the initiative along with faculty and administrators from all four participating campuses.

The dean of the Inter-Campus Graduate School, Dr. Brian Rothschild, is also director of the School for Marine Science and Technology at UMass Dartmouth. Once in full operation, the school will enroll approximately 100 master's and 50 doctoral students in its degree programs. There are currently 76 faculty and professional staff affiliated with the school. The initial curriculum includes 73 courses spanning the sciences and public policy.

Graduates are expected to hold policy-making positions in the public sector and senior positions in the marine industry, as well as scientific and academic posts.

Students will study on the four campuses, as well as at the University's marine laboratory in New Bedford and University field stations in Gloucester and Nantucket. Distance learning technology will allow students to take courses and communicate with faculty and their peers at every University location.

Faculty Teaching Center Honors Teachers and Advisors

Thirty-two faculty members and three advisors received the 2001 Departmental Teaching Awards and the Outstanding Advisor Awards in recent ceremonies hosted by the Faculty Teaching Center.

Sheila Riley-Callahan and Prof. Robert Gamache, co-chairs of the Council on Teaching, Learning, and Research as Scholarship, presented the faculty recipients with certificates. Prof. Melissa Pennell, co-chair of the Advising Task Force, presented plaques to the advisors.

Following are lists of honorees by department:

College of Arts and Sciences—Arts

Asst. Prof. Doreen Arcus, Psychology; Asst. Prof. Caryn Bell, History; Asst. Prof. Daniel Egan, Sociology; Asst. Prof. John Craig Freeman, Art; Prof. David Hirschel, Criminal Justice; Asst. Prof. Hilary Holladay and Prof. Martha McGowan, English; Prof. Frederick Lewis, Political Science; Prof. Gerald Lloyd, Music; Asst. Prof. Noelle McAfee, Philosophy; Asst. Prof. Phil Moss, RESD; Asst. Prof. Sheryl Postman, Languages; and Prof. Ernesto Sanz, Economics.

College of Arts and Sciences—Sciences

Prof. Shimshon Berkovitz and Asst. Prof. Alexander Olsen, Mathematical Sciences; Asst. Profs. James Canning and Jesse Heines, Computer Science; Profs. William Goodhue and David Pullen, Physics; Asst. Prof.

Richard Gore, Environmental Earth and Atmospheric Sciences; Prof. Philip Lamprey, Chemistry; and Prof. Ezequiel Rivera, Biological Sciences.

College of Education

Assoc. Prof. Anita Greenwood, Curriculum and Instruction.

College of Engineering

Asst. Prof. Peter Avitable, Mechanical Engineering; Prof. Michael Fiddy and Assoc. Prof. Dalila Megherbi, Electrical and Computer Engineering; Prof. Don Leitch, Civil Engineering; Prof. Steve Orroth, Plastics Engineering; Assoc. Prof. Margaret Quinn, Work Environment; and Prof. John Walkinshaw, Chemical and Energy Engineering.

College of Health Professions

Prof. Barbara Cocanour, Physical Therapy; Assoc. Prof. Margaret Edmands and Asst. Prof. Sharon George, Nursing; and Assoc. Prof. Mary Elizabeth Hooker, Health and Clinical Sciences.

College of Management

Assoc. Prof. Sherre Strickland, Accounting.

Outstanding Advisor Awards

Prof. Al Doerr, Outstanding Faculty Advisor
Veronica Gadbois, Outstanding Staff Advisor
Patricia Dubois, Outstanding Advisor's Advisor



Gordon Scores with Pumpkin Carving

▲ Junior computer science major Steve Gordon, an assistant system administrator in the University Web Office, recently took a break from classes to carve the University's logo into this Jack O' Lantern.

UMass Lowell

in the
Community

New Coordinator of Music Business Envisions Deepening Community, Campus Connections

It was in Rome that Richard Strasser realized his love of teaching. The Australian native taught the history of Italian opera to non-musicians for two summers at John Cabot University. Strasser, who became the coordinator of the music business program at UMass Lowell last spring, finds that with teaching there's "always a sense of learning and developing."

Before switching to higher education, Strasser worked as a sales executive for a record company in New York City for several years after receiving his master's and doctorate in music from the Manhattan School of Music. Prior to that, he received his graduate diploma in music from the Canberra Institute of the Arts in Australia. An accomplished guitarist, Strasser received the Andres Segovia Award from the Manhattan School of Music and was a finalist in the annual concerto competition.

It was a few business courses that caused him to look at music differently. "There is something in opening to the idea that music is not just listening and performing - there is a business." In 1998, Strasser took a job at Clarion University in Pennsylvania. Although he enjoyed the work, he missed the diversity of culture and food that he found in New York City.

"Lowell is so tolerant. The multicultural diversity in this area is great," said Strasser, who has lived in the states for 11 years.

For over 100 years, UMass Lowell has been making a positive difference in the region, through the education, research, and outreach of the institution. The many people who work on the campus also make a positive difference in the University community, as shown in this series, "UMass Lowell in the Community."

But it was the strength of the department, regionally and nationally, that drew Strasser to UMass Lowell. He explains, "This program now gives students the opportunity to be very well acquainted with the business; it gives a grounding, a foundation to work in the industry." While maintaining the strength of the program, Strasser wants to develop students' self-reliance and entrepreneurial qualities.

His long term goal is to broaden the reach of the program and strike a balance—"broad enough and specific enough to go into divergent fields."



▲ Richard Strasser

Strasser is also excited about how many campus connections to the community already exist and wants to look at ways that the Music Business program

can collaborate with other colleges across campus and the system, as well as in Greater Lowell.

"It's a trend nationally to look at connections between areas. I'm hoping to create more linkages. That's one of the reasons I came here," said Strasser.

"When our students go into business, they will really do well because they are active," according to Strasser, referring to the professional organization Music and Entertainment Industry Students Association (MEISA). "You want students to be proud when they leave - that puts the pressure on me to maintain the quality of the program."

The Shuttle is published by the Publications Office, UMass Lowell, One University Avenue, Lowell, MA 01854. Tel. 934-3223.

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Note Worthy

Assoc. Prof. Dan Golomb of Environmental, Earth and Atmospheric Sciences has co-authored a book, "Energy and the Environment," with an MIT faculty member.

The Charles A. and Anne Morrow Lindbergh Foundation has awarded a 2001 Lindbergh Grant to **Prof. John Duffy**, Mechanical Engineering for his research on solar power in the Andes.

Duffy's grant was one of 10 awarded this year from 168 applicants worldwide. The grants are made in amounts up to \$10,580, which represents the cost of building Charles Lindbergh's plane, the Spirit of St. Louis, in 1927.

Many villages in the Peruvian Andes need energy systems to power medical clinics with lighting, refrigeration and radio communication.

Through his project, "Developing and Building A Solar Refrigeration Unit for Use in Remote Areas of the Peruvian Andes," Duffy plans to gather data on the performance of stand-alone photovoltaic panels in the field. Through his efforts, a number of these interconnected solar cells—which convert sunlight directly into electricity—already have been installed, and local people have been trained to maintain them.

He hopes to expand the installations to other communities, upgrade existing systems, and train local residents to maintain them.

The American Geophysical Union has published a book, "Space Weather," that was co-edited by **Paul Song**, associate professor of Environmental, Earth and Atmospheric Sciences, and associate director of the Center for Atmospheric Research.

In March of last year, more than 160 scientists and students from a dozen countries gathered in Clearwater, Fla., to assess progress in the science of space weather. Their reports form the basis of the book.

The University of Massachusetts Press has announced publication of the book "Approaches to Sustainable Development: The Public University in the Regional Economy," edited by four members of the UMass Lowell faculty.

The four editors are **Profs. Jean Pyle** and **William Lazonick**, and **Assoc. Prof. Robert Forrant** of the Regional Economic and Social Development Department, and **Prof. Charles Levenstein** of Work Environment.

The book contains a collection of essays that span the physical and social sciences, engineering, and the humanities in a debate regarding the best means of achieving sustainable development.

Prof. Levon Chorbajian of the Sociology Department was invited to appear at Roxbury Community College recently to participate in a forum on "Sept. 11 and Its Repercussions."

Chorbajian's talk was titled "Why Are So Many People in the Middle East Angry at the U.S.?"

Promotions & Appointments

Promotions

Donna M. Barron, treasury office specialist in Treasury, from receiving teller.

Rizvana Bhaiwala, professional technician I in Biological Sciences, from laboratory technician.

Norman M. LeClair, maintenance working foreman in Physical Plant, from maintenance equipment operator.

M. Judith Evans, assistant to director of Campus Treasury Services in Treasury, from accountant I.

Appointments

Jennifer A. Keys, associate program manager in the Research Foundation, from case manager, CTI Headstart in Lowell.

Ekaterini Karipidis, bookkeeper II in General Accounting, from accounts receivable clerk at F.W.Webb.

Edmund M. Mantie, strength and conditioning coach/coordinator of hockey operations in Athletics, from Mike Boyle Strength and Conditioning.

Prof. Jones Is Preparing for the 2004 Olympics, In A Way

Michael Jones has been painting in oils for some time. His latest work—in the form of a poster—is selling quite well at \$130 a copy.

When signed, it goes for more than twice that amount.

The associate professor of legal studies did this latest work for USA Triathlon, the sport's national governing body.

"I was serving as chief judge of the Olympic triathlon trials in Dallas a while ago and noticed that there were no posters for the sport in evidence," says Jones, himself a triathlete with international credentials.

"So I suggested to Steve Locke, the executive director of USA Triathlon, that I do a painting depicting what the sport means to me and

that, if they liked it, they could make a poster out of it."

Jones completed the painting earlier this year. Done in an impressionistic style, it depicts the three phases of the triathlon event—swimming, bicycle racing and running. The governing body liked it and a poster was produced. It then came to the attention of members of the U.S. Olympic Committee and they asked if he would create a triathlon poster for the 2004 Summer Olympics in Greece. He agreed and says he is now "collecting my thoughts and studying various symbols and images that may trigger the process."

"I hope to do something different from the first one," he says. "It's fun to be creative."



▲ **Assoc. Prof. Michael Jones** displays a USA Triathlon poster created from one of his oil paintings. A successful triathlete in his own right, Jones has now been asked by the U.S. Olympic Committee to design a triathlon poster for the 2004 Olympics in Greece.

Stecchi Chapter Selected for Web Publication

Dr. Janice Stecchi, dean of the College of Health Professions, has been notified that one of her chapters in the 2001 publication "Davis's NCLEX-RN Success" has been selected as the on-line sample chapter. It can be found at www.fadavis.com by searching for Lagerquist, the name of the editor. The text book is used by nursing students as a study guide during their academic program and as a review text for nursing students who are preparing to take the licensure exam.

Calendar of Events

Tuesday, Oct. 30

Performance, STARTS Educational Field Trip Series, "Island of the Blue Dolphins," grades 5-8, 9:30 a.m. and 11:30 a.m., Durgin Hall. For more information, call (978) 934-4452.

Lecture, "Women's Issues in Egypt," by Selma Boatman, vice president for Academic Affairs, University of Massachusetts, 2 p.m., O'Leary Library 500M, South Campus.

Dinner Conversation, "Campus Diversity Today: What Research Reveals About its Impact on Learning," by Debra Humphreys, vice president for Communications and Public Affairs for the Association of American Colleges and Universities, 3:30 to 7:30 p.m., Alumni Hall, North Campus.

Wednesday, Oct. 31

Physics Colloquium, "Weather Report from an Extrasolar Planet," by Prof. Dimitar Sasselov, Harvard University, 4 p.m., Olney 428, North Campus.

Thursday, Nov. 1

Working Conference, Fifth Annual Working Conference on Sustainable Development addressing the role of diversity and culture in sustainable development, 3 to 8 p.m., Alumni Hall. For information, call (978) 934-4342.

Performance, String Currents, Dr. Kay Roberts, director, 1 p.m., Durgin Hall.

Community Discussion Series, "Where Can I Live When I Grow Old? Elder Homelessness and Housing Needs," led by Judie Post, director, Area Agency on Aging, Elder Services of Merrimack Valley, 7:15 to 8:30 p.m., Coburn Hall, Room 205, South Campus. For information, call Dr. Bill Berkowitz (978) 934-3655.

Saturday, Nov. 3

Football, vs. Assumption, 1 p.m., Cushing Field Complex, North Campus. For information, call (978) 934-HAWK.

Volleyball, vs. New Haven, 1 p.m., Costello Gym, North Campus. For information, call (978) 934-HAWK.

Volleyball, vs. St. Rose, 5 p.m., Costello Gym, North Campus. For information, call (978) 934-HAWK.

Sunday, Nov. 4

Performance, Discovery Series, "The Spencers: Theatre of Illusion," magic, comedy, music and audience participation for the entire family. Two showings: 2 p.m. and 4:30 p.m., best for ages 4 and up. For information and to order tickets, call (978) 934-4444.

Monday, Nov. 5

Lecture, "Sustaining Employment in the Merrimack Valley: Upgrading Worker Skills for the New Economy," by Judith Coughlin, Milt Taylor, and Paul Babin, noon, O'Leary Hall, Room 500M, Wilder Street, South Campus.

Seminar, "A Brazilian Experience: An Occupational Health Public Reference Center," Tiago Jansen, M.D., visiting scholar in Work Environment Dept., 2:30 to 4 p.m., Kitson 208, North Campus.

Wednesday, Nov. 7

Conference, "Coming to America: Immigration and Industrialization," 14th Annual Lowell Conference on Women's History, 8:30 a.m. to 2:45 p.m., Tsongas Industrial History Center. For information, call (978) 970-5080 or visit www.uml.edu/tsongas.

Art Gallery Reception, "Strata," photographs of the large-scale alternative process, by Susan V. Haas, 3 to 7 p.m., University Gallery, McGauvran Student Center. Gallery hours: Monday through Saturday, noon to 3 p.m. Exhibit continues through Dec. 7.

Thursday, Nov. 8

Dinner Conversation, "Course Enhancement Sampler: Community Technology and Applied Learning." Sponsored by the Council on Teaching, Learning and Research as Scholarship, 3:15 p.m., Alumni Hall.

Community Discussion Series, "Bridging the Digital Divide in Lowell," led by Felicia Sullivan, director, Lowell Community Technology Consortium, 7:15 to 8:30 p.m., Coburn Hall, Room 205, South Campus. For information, call Dr. Bill Berkowitz (978) 934-3655.

Friday, Nov. 9

Conference, "Occupational Health and Safety in the Changing Healthcare Industry," Panel discussions and breakout sessions, 8:30 a.m. to 4 p.m., Holiday Inn, Route 133, Tewksbury, MA.

Hockey, vs. UNH, 7 p.m., Tsongas Arena. For information, call (978) 934-HAWK.

Saturday, Nov. 10

Football, vs. American International, 1 p.m., Cushing Field Complex, North Campus. For information, call (978) 934-HAWK.

Wednesday, Nov. 14

Chancellor's Open Hours, staff, 2 to 3 p.m.; students, 3 to 4 p.m.; faculty, 4 to 5 p.m.; Trustees' Room, Cumnock Hall, North Campus.

Physics Colloquium, "Black Silicon," by Catherine Crouch, Harvard University, 4 p.m., Olney 428, North Campus.

Thursday, Nov. 15

Performance, STARTS Educational Field Trip Series, Kevin Locke Trio/Native American Flute, Storytelling and Dance, grades 3-5, 9:30 a.m. and 11:30 a.m., Durgin Hall. For information, call (978) 934-4452.

Community Discussion

Series, "Missing and Runaway Youth," led by Robin Smith, juvenile crime analyst, Lowell Police Dept., 7:15 to 8:30 p.m., Coburn Hall, Room 205, South Campus. For information, call Dr. Bill Berkowitz (978) 934-3655.

Friday, Nov. 16

Hockey, vs. UMass Amherst, 7 p.m., Tsongas Arena. For information, call (978) 934-HAWK.

Monday, Nov. 19

Performance, STARTS Educational Field Trip Series, "Are You My Mother?," grades K-2, 9:30 a.m. and 11:30 a.m., Durgin Hall. For more information, call (978) 934-4452.

Lecture, "Globalization and Environmental Justice: Bringing About Sustainable Development," by Daniel Faber, professor of sociology at Northeastern University, noon, O'Leary Hall, Room 500M.

Concert, Percussion Ensemble, Prof. Jeffrey Fischer, director, 7:30 p.m., Fisher Recital Hall, Durgin Hall, South Campus.

Saturday, Nov. 24

Hockey, vs. Army, 7 p.m., Tsongas Arena. For information, call (978) 934-HAWK.

Sunday, Nov. 25

Women's Basketball, vs. St. Rose, 2 p.m., Costello gym. For information, call (978) 934-HAWK.

Men's Basketball, vs. St. Rose, 4 p.m., Costello Gym. For information, call (978) 934-HAWK.

Monday, Nov. 26

Lecture, "Chinese Enterprises Responses to Globalization," by Ed Steinfield, professor, Sloan School of Management, MIT, noon, O'Leary Hall, Room 500M.

Concert, Chamber Ensemble, Prof. David Martens, director, 7:30 p.m., Durgin Hall.

Did you know...

that the campus dining halls use approximately 95 loaves of bread daily during the school year?

For Extra Credit...

How many wraps and pitas does the Fresh Food Company serve per day?

About 100.